AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 4, as follows:

The technology disclosed herein~~present invention~~ generally refers to image processing, and in particular to methods and systems for encoding and decoding images.

Please amend the paragraphs beginning at page 3, line 1, through page 3, line ~~23~~ 22, as follows:

The technology disclosed herein ~~present invention~~ overcomes these and other drawbacks of the prior art arrangements.

It is a general object of the technology disclosed herein~~present invention~~ to provide an efficient image processing.

It is another object of the technology disclosed herein ~~invention~~ to provide an efficient image encoding and image decoding.

A further object of the technology disclosed herein~~invention~~ is to provide image encoding and decoding adapted for alpha images comprising transparent and/or semi-transparent image elements.

~~These and other objects are met by the invention as defined by the accompanying patent claims.~~

Briefly, the ~~present invention~~ technology disclosed herein involves alpha image processing in the form of encoding (compressing) an alpha image and decoding (decompressing) an encoded (compressed) image.

According to the technology disclosed herein~~invention~~, an alpha image to be encoded is decomposed into a number of image blocks comprising multiple image elements (pixels, texture elements, texels, or volume elements, voxels). An image block preferably comprises eight image elements and preferably has a size of 2^m times 2^n image elements, where m=3-n and n=0, 1, 2, 3, or a size of $2^m \times 2^n \times 2^p$, where m, n, p=0, 1, 2, 3 and preferably m+n+p=3. Each image element in a block is characterized by a color and an alpha or transparency value. The individual image blocks are then compressed

FIG. 7 is a flow diagram illustrating an image decoding method according to the ~~present invention~~ technology disclosed herein;

Please amend the paragraph beginning at page 7, line 19, and continuing to page 8, line 2, as follows:

FIG. 12 is a block diagram schematically illustrating an example embodiment of an image encoder ~~according to the present invention~~;

FIG. 13 is a block diagram schematically illustrating an example embodiment of a block encoder ~~according to the present invention~~;

FIG. 14 is a block diagram schematically illustrating another example embodiment of a block encoder ~~according to the present invention~~;

Please amend the paragraph beginning at page 8, line 9, and continuing to page 8, line 15, as follows:

FIG. 18 is a block diagram schematically illustrating an example embodiment of an image decoder ~~according to the present invention~~;

FIG. 19 is a block diagram schematically illustrating an example embodiment of a block decoder ~~according to the present invention~~;

FIG. 20 is a block diagram schematically illustrating another example embodiment of a block decoder ~~according to the present invention~~;

FIG. 21 is a hardware block diagram schematically illustrating an example embodiment of a block decoder ~~according to the present invention~~;

Please amend the paragraphs beginning at page 9, line 4, and continuing to page 9, line 12, as follows:

The technology disclosed herein~~present invention~~ relates to image and graphic processing, and in particular to encoding or compressing alpha images and decoding or decompressing encoded (compressed) alpha images.

A preferred example implementation of a color quantizer 310 ~~according to the present invention~~ is illustrated in the block diagram of FIG. 15. The quantizer 310 comprises means 312 configured for determining an average of the colors of the image elements in the image block.

Please amend the paragraph beginning at page 46, line ~~20~~ 21 yr 10/2/09, and continuing to page 46, line ~~26~~ 27 yr 10/2/09, as follows:

A preferred implementation of an alpha quantizer 320 according to the technology disclosed herein~~present invention~~ is illustrated in the block diagram of FIG. 16. The quantizer 320 comprises means 322 configured for determining an average of the alpha of the image elements in the image block. This average alpha value is then provided to quantizing means 324, which quantizes the average alpha value and generates the alpha codeword from this quantized average alpha value.

Please amend the paragraph beginning at page 47, line 6, and continuing to page 47, line 11, as follows:

A preferred example implementation of an index selector 340 ~~according to the present invention~~ is illustrated in the block diagram of FIG. 17. This index selector 340 comprises an alpha modifier selector 342 for selecting an alpha modifier for each image element in the block. The alpha modifier indices associated with these selected alpha modifiers are then generated and composed into an alpha index sequence.

Please amend the paragraph beginning at page 48, line 2, and continuing to page 48, line 21, as follows:

FIG. 18 illustrates a block diagram of an example embodiment of an image decoder 220 ~~according to the present invention~~. The image decoder 220 preferably comprises a block selector 222 for selecting, e.g. from a memory, which encoded image block(s) that should be provided to a block decoder 400 for decoding. The block selector 222 preferably receives input information associated with the encoded image data, e.g.

from a header or a rendering engine. An address of a compressed image block having the desired image element(s) is computed based on the input information. This computed address is preferably dependent upon the image-element (pixel, texel or voxel) coordinates within an image. Using the address, the block selector 222 identifies the encoded image block from e.g. a memory or a cache. This identified encoded image block is then fetched from the storage and provided to the block decoder 400.

The (random) access to image elements of an image block advantageously enables selective fetching and decoding of only those portions of an image that are needed. Furthermore, the image can be decoded in any order the data is required. For example, in texture mapping only portions of the texture may be required and these portions will generally be required in a non-sequential order. Thus, the image decoding of the technology disclosed herein~~present invention~~ can with advantage by applied to process only a portion or section of an image.

Please amend the paragraph beginning at page ~~50~~ 49 line ~~4~~ 27, and continuing to page 50, line 8, as follows: 10/2/09

FIG. 19 is an illustration of an example embodiment of a block decoder 400 ~~according to the present invention~~. The block decoder 400 comprises a color generator 410 that generates a color representation for the image elements in the image block based on the color codeword. This generator 410 preferably expands the quantized color of the color codeword into a color representation.

Please amend the paragraph beginning at page 51, line 3, and continuing to page 51, line 8?, as follows:

FIG. 20 illustrates a block diagram of another example embodiment of a block decoder 400 ~~according to the present invention~~. This block decoder embodiment is able to operate according to the two previously described decompression modes. The operation of the alpha generator 420, alpha modifier set provider 430 and alpha modifier 450 has already been described with reference to FIG. 19 and is not repeated herein.